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REMARKS

As a preliminary matter, Applicants thank the Examiner for the acknowledgement of allowable subject matter in claims 43-44 and 46. These claims have been rewritten into independent form herein, and should therefore be in immediate condition for allowance.

As a second preliminary matter, Applicants also thank the Examiner for the withdrawal of all the previous restrictions.

Claim 48 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Specifically, the Examiner correctly points out that the phrase "said linearly arranged structure" lacks the proper antecedent basis. Such an antecedent basis issue, however, more appropriately should have warranted only an objection to the claim, and not a rejection under Section 112. The language cited by the Examiner is clearly just a typographical error, which has been corrected herein.

Claims 38-39, 41, 45, 47, 49, and 51-53 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ohkubo et al. (U.S. 4,878,742). Applicants presume that the Examiner meant to include independent claim 42 in this rejection as well, in light of the rejection of its dependent claims 45, 47, 49, and 51. With this presumption, Applicants respectfully traverse the rejection as follows.

With respect to independent claims 38 and 52 of the present invention, (and therefore their dependent claims as well), Ohkubo fails to teach or suggest that an electrode forms a linear slit. In Figs. 2A-2C, Ohkubo illustrates a vertical alignment layer 25, a horizontal layer 24, and a light-transmissive electrode 23. The electrode 23 does not form

slits, as now more clearly recited in claim 38. The Examiner is merely interpreting the planar gap between the homogenous alignment ability regions 25 as being equivalent to a slit. This gap, however, clearly is formed on the *homeotropic alignment ability region 24*, whereas claims 38 and 52 feature that an actual linear slit is formed by a single electrode.

With respect to independent claim 42 and its dependent claims 45, 47, 49, and 51, the rejection is traversed because Ohkubo fails to teach (or suggest) that the gaps between the regions 25 control, in the plane of the substrates, the rotation of liquid crystal molecules. See, for example, Figs. 5 and 6 of the present application. Ohkubo addresses only the issue of tilt, or pretilt, to the liquid crystal molecules 26 in a direction *perpendicular* to the plane of the substrates 21, as seen in Fig. 2B. Ohkubo is silent regarding any rotational control of the liquid crystal molecules 16 in a plane parallel to the substrates. The two phenomena are not the same, and Ohkubo simply fails to teach (or suggest) that the space between the regions 25 has any effect on rotation of the liquid crystal molecules in the plane of the substrates.

In contrast, independent claim 42 of the present invention as amended now recites, among other things, that the linear protrusion (claim 42) or slit (claims 42 or 52), as well as the boundary, each control the rotation of liquid crystal molecules in the plane of the substrate. Figs. 2A-C of Ohkubo, however, show that no such similar result occurs. Although the *tilt* of the molecules 26 appears to be affected by the shapes of the regions 25 (best seen in Fig. 2C), rotation of the same molecules parallel to the substrates (best seen in Fig. 2B) is not. Accordingly, Applicants submit that the outstanding rejection of claims 45, 47, 49, 51 (and thus 42) based on Ohkubo has been overcome.

New claim 54 has been added to recite yet another combination of features of the present invention. More specifically, new claim 54 features that a slit with at least one boundary is formed by an electrode on a substrate, where the electrode portions that form the slit are wider than the slit. This new claim is also allowable over Ohkubo.

Claims 38, 40, 42, 48, and 50 stand rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (U.S. 5,905,556). Applicants traverse this rejection as well for the following reasons.

With respect to independent claim 38 and its dependent claim 40, Applicants traverse the rejection because Suzuki fails to teach (or suggest) that a slit is formed by a single electrode. The Examiner cites only the regions *between* the electrodes (CE and S) as being equivalent to slits. By definition therefore, such "slits" are not formed by one electrode. For at least this reason, Applicants submit that the rejection of claims 38 and 40 based on Suzuki has been overcome.

With respect to independent claim 42 and its dependent claim 48, Applicants traverse the rejection because Suzuki fails to teach (or suggest) that the shape of the space between the electrodes in any way controls the rotation of the liquid crystal molecules in the plane of the substrates. Unlike Ohkubo, Suzuki does indicate a rotation R1 to the liquid crystal molecules M in the plane of the substrates. In Suzuki, however, only the presence of the electric field E1, and not the actual shape of the space between the electrodes CE and S, causes such rotation. With no electric field (no voltage across the electrodes), Suzuki would not achieve any rotational control of the liquid crystal molecules in the plane of the substrates. Claim 42, on the other hand, recites that such rotation control is affected by the

shape of the linear protrusion or slit, without any consideration of an electric field that may or may not be present. Accordingly, Applicants submit that the rejection of claims 42 and 48 based on Suzuki has also been overcome.

For all of the foregoing reasons, Applicants submit that the present Application, including claims 38-54, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if a further interview would expedite prosecution.


Respectfully submitted,  
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